

# **Amateur endurance triathletes' performance is improved independently of volume or intensity based training**

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## **Abstract**

The aim of the present research was to compare the effects in swimming and running performance, horizontal jump test, autonomic modulation, and body composition of four training weeks with emphasis on volume versus intensity in moderate trained triathletes. Thirty-two amateur triathletes (20 males and 12 females) were randomly divided in three different groups that performed 6 training session per week: Intensity (INT): training focused on performs intensity training Volume (VOL): training focused on performs volume training; and Control (CON): physical active group with no periodized training. Body composition, heart rate variability, horizontal jump test, swimming and 2000 m running test were tested before and after the training period. There were no significant differences between INT and VOL in running test. Furthermore, both INT and VOL training groups improved 50 m (p: 0.046 and 0.042 respectively) and 400 m (p: 0.044 and 0.041 respectively) swimming performance. Moreover, there were no significant differences among groups in any moment in HRV variables. No significant difference was observed for horizontal jump test and body composition between the INT and VOL group at any time. According to the results of the present study, four weeks of training with either high intensity or volume results to similar adaptations in endurance, horizontal jump test and body composition parameters in amateur triathletes.

Keywords:

Triathlon, Running, periodization, Strength, Heart rate variability, Body composition